NWS CHANGE FORM PART A - COVER SHEET	1A. DATE SUBMITTED December 10, 2003
	1B. DATE RECEIVED

This form is in three parts. Submitters must complete unshaded blocks in Part A and as much of Part B and C as possible. If there is no specific required change date, enter 60 days from date submitted. Address questions to NWS Change Management at (301) 713-1373. Submit change requests to the NWSRC mailbox (External: NWSRC@noaa.gov).

2. ORIGINATOR OFFICE Office of Science and Technology, Systems Engineering Center (OST32)	3. SUBMITTING AUTHORITY Name:Henry Robinson Routing Code: OS12	4. COGNIZANT TECHNICAL INDIVIDUAL Name: Dave Niver Routing Code: W/OST32 Phone: 301-713-9001 x168 Name: James Heil Routing Code: OS11 Phone: 301-713-0463 x172	5. ORIGINATOR TRACKING NUMBER	

6. SYSTEMS AFFECTED BY CHANGE

☐ DATA PRODUCTS   ☐ OTHER (specify)

☐ ASOS   ☒ AWIPS   ☐ NEXRAD   ☐ RRS   ☐ CRS

7. WSH TRACKING NUMBER	7A. REV LEVEL

8. TITLE OF CHANGE

Draft: Add a Full Set of Eta 12 218 Grids to SBN/NOAAPORT

9. OPERATIONAL REQUIREMENTS DOCUMENT IDENTIFIER

10. CATEGORY OF CHANGE

☒ RC   ☐ PECP   ☐ ECP

11. CLASS OF CHANGE

☐ CLASS I   ☐ CLASS II

12. TYPE OF CHANGE

☐ DOCUMENTATION ONLY   ☐ HARDWARE   ☒ SOFTWARE   ☒ DATA

13. SITES AFFECTED   All sites

14. STATEMENT OF REQUIREMENT, PROBLEM, OR DEFICIENCY OF EXISTING SYSTEM

The AWIPS Program is required to implement "Full" support for NCEP's Eta (12 km res) model grids, augmenting the current suite of Eta grids available to AWIPS sites. This effort will expand to the full Eta 12 parameter set, providing it out to 84 hours (see DRG RC 666 for a description of other recent additions to the Eta 12 AWIPS suite). This RC covers the CONUS (Grid 218) grids only. The format of these grids will be GRIB2 with jpeg2000.

This full set of Eta 12 grids will be allocated within AWIPS OB4.

15. KNOWN OR PROPOSED SOLUTION

The additional Eta 12 forecast times should be added to the SBN and made available to AWIPS sites, following a dissemination pathway similar to the existing AWIPS Eta 12 grids:

        NCEP ➜ NWS TG ➜ AWIPS NCF ➜ SBN(TG1 or TG2 chan) ➜ AWIPS & NOAAPORT Users.

Specifications for new Eta 12 grids:

1. Grid 218 (CONUS)

2. Parameter set (with Levels): 38 total parameters
   (Based on mesoEta parameters from Grids 212, 215, 216, and 217)

Geopotential Height (30; a/Frz)	Surface Maximum Temperature
Temperature (36; a/c/Trop/2m FHAG)	Surface Minimum Temperature
Relative Humidity (32; b/c/Sig 33>100/Frz/2m FHAG)	Surface Wind Speed
u-wind (37; a/c/Trop/MaxW/10m FHAG)	Surface Wind Direction
v-wind (37; a/c/Trop/MaxW/10m FHAG)	Surface Dewpoint Temperature
Pressure Vertical Velocity (29; a)	Total Cloud Cover
Surface Pressure	Thunderstorm Probability
Absolute Vorticity (5; d)	Frozen Precipitation Probability
Convective Precipitation	Freezing Precipitation Probability
Total Precipitation	Precipitation Probability
Precipitable Water	Snow Depth
MSLP	Tropopause Pressure
MSLP (Eta model reduction)	Maximum Wind Level Pressure
Lifted Index	Surface Lifted Index
Best Lifted Index (2; Sfc/BL 0-180m AGL)	Categorical Rain
CAPE (2; Sfc/BL 0-180m AGL)	Categorical Freezing Rain
CIN (2; Sfc/BL 0-180m AGL)	Categorical Ice Pellets
Helicity	Categorical Snow
Water Equivalent Accum. Snow Depth	Visibility

3. Levels (Specified within parameter set above):
   a. 29 Levels: 1000 to 500 mb by 25 mb steps; then 450 to 100 mb by 50 mb steps
   b. 24 Levels: 975 to 500 mb by 25 mb steps; then 450 to 300 mb by 50 mb steps
   c.   5 Levels   0-30m, 30-60m, 60-90m, 90-120m, and 120-150m AGL
   d.   5 Levels: 1000, 850, 700, 500, and 250 mb

4. Forecast Intervals
   AWIPS IFPS Eta 12 grids are provided out to 84 hours for all four model runs
   (at three hour intervals), giving 29 total "valid times:"
   00, 03, 06, 09, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42,
   45, 48, 51, 54, 57, 60, 63, 66, 69, 72, 75, 78, 81, and 84 Hrs.
   Units are hours from model initialization time.

5. The four Eta 12 model run times are 00, 06, 12 & 18 UTC.

6. An estimated TBD Mbytes/day is expected on the SBN/TG channel, given:
       a. Average size these 218 (CONUS) grid is TBD;
       b. 238 total new grids per forecast interval; and
       c. 116 total forecast intervals: 29 intervals at 00, 06, 12, and 18 UTC

The NWS TG shall provide these products in very-near-real time to the AWIPS NCF for uplink on the SBN's TG channel.

16. ALTERNATE SOLUTIONS
None.

17. REQUIRED CHANGE DATE **TBD**	18. RATIONALE FOR REQUIRED CHANGE DATE This product has recently been allocated to AWIPS OB4, which is scheduled to commence deployment in August 2004.	19. PRIORITY
		☐ ROUTINE ☒ URGENT ☐ EMERGENCY

DRG/CCB/PMC/CMB DECISION					
20. DECISION AUTHORITY LEVEL	☐	FAST TRACK	☐ CCB LEVEL ONLY	☐	PMC or NWS CMB DECISION REQUIRED
21. CCB LEVEL DECISION	☐ APPROVED		☐ DISAPPROVED	SIGNATURE	
	☐ RECOMMEND APPROVAL			DATE SIGNED	
FOR USE ONLY WHEN PMC or NWS CMB DECISION REQUIRED					
22. PMC OR NWS CMB DECISION	☐ APPROVED		☐ DISAPPROVED	SIGNATURE/DATE	

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NWS CHANGE FORM
PART A - DATA PRODUCTS SUPPLEMENT

	1. ORIGINATOR TRACKING NUMBER

This information is required for Data Products submissions.	2. WSH TRACKING NUMBER	2A. REV LEVEL

3. NODE ID	4. AWIPS ID	5. WMO HEADER	6. ADD REV DEL	7. SEAS Y/N	8. CHAR PER MSG	9. FREQUENCY	10. NWSTG DISTR	NWWS ONLY	
	NNNXXX							11. PRIME UPLINK	12. B/U UPLINK

Notes: The WMO header assignment notes, below, refer to the generic header template: $T_1T_2A_1A_2ii$.

TBD

FOR METAR CHANGES ONLY						17. INTERNAL NWS USE ONLY	18. PRODUCT SOURCE	19. AWIPS DATA TYPE
13. COMMS ID	14. N. LATITUDE			15. W. LONGITUDE		16. ELEV (M)			

13. COMMS ID	DEG	MIN	SEC	DEG	MIN	S E	16. ELEV (M)	20. NOTIFICATION	A. CHANGE NOTICE NUMBER	B. EFFECTIVE DATE	C. ISSUE DATE
								AWIPS			
								EMWIN			
								NWWS			

NWS CHANGE FORM PART B - FUNDING AND SUPPORT ACTIVITIES		1. ORIGINATOR TRACKING NUMBER	
All RC/ECP submissions must also address the following information. Attach extra pages if necessary, referencing each applicable subject.		2. WSH TRACKING NUMBER	2A. REV LEVEL

FUNDING INFORMATION	SOURCE OF FUNDING	COST DATA
3A. DEVELOPMENT COSTS	3B.	3C. $
4A. OPERARQONAL TEST AND EVALUARQON COSTS	4B.	4C. $
5A. PRODUCRQON COSTS	5B.	5C. $
6A. COMMUNICARQONS SERVICE/CIRCUITS COSTS	6B.	6C. $
7A. IMPLEMENTARQON SUPPORT COSTS	7B.	7C. $
8A. LIFE CYCLE SUPPORT COSTS	8B.	8C. $

9A. CCB COST EVALUARQON
    NWS COST $ FAA COST $ DOD COST $ OTHER AGENCY COST $
                                                                                        (SPECIFY)
	9B. TOTAL COST
	$

SUPPORTING INFORMATION AND SCHEDULES	
10. DEVELOPMENT STATUS/SCHEDULE	11. PROCUREMENT STATUS/ SCHEDULE
12. IMPLEMENTATION/RETROFIT STATUS/SCHEDULE	13. FACILITY INFORMATION
14. COMMUNICATIONS RESOURCES TO BE INSTALLED	15. COMMUNICARQONS RESOURCES TO BE REMOVED
16. REQUIRED CLEARANCES, WAIVERS, AND LICENSES	17. COORDINARQON OF CHANGE WITH OTHER CHANGES
18. PHYSICAL ITEMS AND DOCUMENTS AFFECTED	19. STAFF RESOURCE IMPACTS
20. LOGISRQCS IMPACTS	21. OPERARQONAL IMPACTS
22. ADDIRQONAL MAJOR CHANGE ACRQVIRQES	

<table>
<tr><td colspan="2" align="center">NWS CHANGE FORM
PART B - PHYSICAL ITEM AND DOCUMENT IMPACT MATRIX SUPPLEMENT</td><td colspan="2">1. ORIGINATOR TRACKING NUMBER</td></tr>
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NWS CHANGE FORM PART B - PHYSICAL ITEM AND DOCUMENT IMPACT MATRIX SUPPLEMENT	1. ORIGINATOR TRACKING NUMBER	
This information is required prior to publication of Engineering Modification Notes and Software Release Notes.	2. WSH TRACKING NUMBER	2A. REV LEVEL

PART AND SOFTWARE IDENTIFICATION

3. ITEM TYPE: HARDWARE SOFTWARE	4. ITEM NAME AND REFERENCE DESIGNATOR	5. ADD REMOVE REPLACE MODIFY	6. OLD PART OR SOFTWARE VERSION		7. NEW PART OR SOFTWARE VERSION	
			A. PART NUMBER OR SOFTWARE VERSION	B. SERIAL NUMBER OR LOT	A. PART NUMBER OR SOFTWARE VERSION	B. SERIAL NUMBER OR LOT

DOCUMENTATION IDENTIFICATION

8. DOCUMENT TYPE	9. DOCUMENT TITLE	10. ADD REMOVE REPLACE MODIFY	11. OLD DOCUMENT		12. NEW DOCUMENT	
			A. IDENTIFIER	B. REVISION IDENTIFIER	A. IDENTIFIER	B. REVISION IDENTIFIER

NWS CHANGE FORM **PART C - CHANGE AND IMPLEMENTATION ACTIVITIES**	1. ORIGINATOR TRACKING NUMBER	
Submitters should propose implementation actions; WSH will assist with and supplement actions or required statements when necessary.	2. WSH TRACKING NUMBER	2A REV LEVEL

3. IMPLEMENTATION DOCUMENTS REQUIRED

☐ Engineering Modification Note   ☐ Software Release Notes   ☐ Other Document (Specify)_____

ADDITIONAL IMPLEMENTATION INSTRUCTIONS

4. IMPLEMENTATION ACTIVITY REQUIRED	5. REQUIRED COMPLETION DATE	6. RESPONSIBLE PERSON AND OFFICE	7. DOCUMENT OR ACTION REQUIRED TO VERIFY COMPLETION